

SUSTAINABILITY REPORT 2021 •

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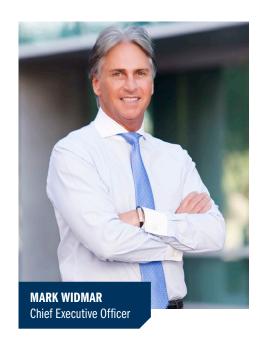
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# Note Regarding Forward-Looking Statements

All financial numbers in this report are based on U.S. Generally Accepted Accounting Principles. This report contains forward-looking statements within the meaning of the United States federal securities laws. These forward-looking statements do not constitute guarantees of future performance. These forward-looking statements are based on current information and expectations, are subject to uncertainties and changes in circumstances, and involve a number of factors that could cause actual results to differ materially from those anticipated by these forward-looking statements, including risks described in our most recent annual report on Form 10-K, and other filings with the Securities and Exchange Commission. First Solar assumes no obligation to update any forward-looking information contained in this report or with respect to the information described herein.

# Message From the CEO.

The solar industry has reached an inflection point. Just a few years ago, the biggest obstacle we faced was proving that solar could be reliable and cost-competitive without the need for subsidies. Today, we can proudly state that we have overcome that challenge and utility-scale solar is now cheaper than any other form of new-build power generation in most major markets.



Where once solar was described as "new energy" or "alternative," solar PV is on a trajectory to become the dominant source of electricity generation in many countries while powering the new alternatives, such as hydrogen.

While the solar industry has many achievements that it must be proud of, the journey has not been without its challenges and the focus on solar-at-any-cost has not been without consequences. It is deeply unfortunate, for example, that too many conversations these days include "solar" and "forced labor" in the same sentence. Or that the use of dirty coal electricity to power China's dominance of polysilicon production is now in full public view, tainting the reputation of an entire industry.

Besides shaking up the status quo, the increased public scrutiny of the solar industry appears to be forcing a reckoning that, we hope, will transform the industry into one that is stronger and more accountable, and recognizes the inherent business and reputational risks that inevitably accompany solar-at-any-cost.

This is also an inflection point for us at First Solar and, in many ways, marks the next phase in our evolution as a company. For one, we have embraced our position as an industry leader, taking vocal positions on issues that we are passionate about. Why? Because diverse perspectives are important, and we believe that ours, which can sometimes run contrary to the dominant narratives, help bring clarity and insight to conversations about the future, stability, and sustainability of our industry.

This is why we're doubling down on solar that isn't simply powered by true innovation but also powered by a sense of responsibility towards people and the planet. It's an approach that requires us to remember the original promise of solar. To put purpose at the center of everything we do. To do well and to enable the success of our partners and customers by doing good.

We call this Responsible Solar. It is solar with an overarching ethical commitment to people and the planet. It is solar that doesn't pay lip service to sustainability but embodies it. Solar that considers the social and environmental impacts and works hard to make people's lives healthier. Solar that has no tolerance for the use of forced labor either in its manufacturing or its supply chain. And solar that meaningfully supports the fight against climate change.

It represents a meaningful commitment to hold ourselves to a higher standard. As a result, our Series 6 modules received an EPEAT Silver rating and became the first PV product to be included in the EPEAT registry for sustainable electronics. This globally recognized and independently validated ecolabel gives customers the confidence they are purchasing an environmentally leading product from a socially responsible company. We also successfully reduced our GHG emissions-, energy-, and water- intensity due to the greater manufacturing throughput and enhanced energy and water efficiency of our Series 6 manufacturing process. In 2020, we joined RE100 and committed to powering our global operations with 100% renewable energy by 2028 in an effort to further reduce our

operational impacts. In 2021, we continued to build on our environmental commitments by setting science-based targets to reduce our absolute GHG emissions by 20% by 2028 and achieve Net Zero emissions by 2050, relative to 2020.

To build on our responsible sourcing track record and drive industry best practices, First Solar became a member of the Responsible Business Alliance (RBA) - the world's largest industry coalition dedicated to supporting the rights and well-being of workers and communities in the global supply chain. Our decision to join the RBA was driven by our comprehensive approach to responsible supply chain management and the recognition that not all audits are created equal. As a member, we will not only have access to the RBA's due diligence tools and programs but also its Validated Assessment Program (VAP), which is a leading standard for onsite compliance verification and effective, shareable audits. Simply put, respect for human rights in our operations and supply chain is non-negotiable.

As part of our effort to reduce inequalities and promote a diverse and inclusive workplace, we continue to integrate inclusion, diversity, and belonging measures throughout our global people strategy- from our hiring policies to our benefit

programs. Although we recognize there is more work to be done, these measures are already starting to deliver results. Over the past year, we added gender, racial and multicultural diversity into the Executive Leadership team and increased the percentage of women in management and the workforce. As of 2021, approximately 30% of our board seats are occupied by women. Building on the foundation of our Global Women's Network, GLOW, we successfully launched our Black and African American Network in 2020 and plan to launch our Hispanic and Latin American Network in 2021. We are also putting our treasury dollars to work in ways that reflect our commitment to diversity and inclusion. In 2021, First Solar invested \$11 million in efforts to revitalize American communities and bridge racial gaps in health, wealth, and opportunity.

These are just some of the ways that we are delivering Responsible Solar to our stakeholders, society, and the planet. Thank you for your interest in this Sustainability Report and our continued journey to lead the world's sustainable energy future

#### Mark Widmar

Chief Executive Officer



## 2020 Highlights.

**6.1GW** 

**Produced** 



**431%** 

*....* 

Lower GHG Emissions Intensity



**419%** 



Lower
Manufacturing
Energy
Intensity



+90%

Module Recycling Material Recovery Rate



+1%

Women In Management & Workforce



1st EPEAT-Rated PV Product



**Prime** 

**ISS ESG Rating** 



**A**-

CDP Climate Change And Water Score





First Solar is a leading American solar technology company and global provider of responsibly-produced eco-efficient solar modules advancing the fight against climate change. We are unique among the world's ten largest solar manufacturers for being the only US-headquartered company and for not using a crystalline silicon (c-Si) semiconductor. Developed at R&D labs in California and Ohio, First Solar's advanced thin film photovoltaic (PV) modules represent the next generation of solar technologies, providing a competitive, high-performance, lower-carbon alternative to conventional c-Si PV panels. From raw material sourcing and manufacturing through end-of-life module recycling, First Solar's approach to technology embodies sustainability and a responsibility towards people and the planet.



#### Offices

#### Manufacturing Plants

First Solar is headquartered in Tempe, Arizona, with regional offices around the world and manufacturing facilities in Perrysburg and Lake Township, Ohio; Kulim, Malaysia; and Ho Chi Minh City, Vietnam. Our annual manufacturing capacity has grown from 25 megawatts (MW) in 2005 to 7.9 gigawatts (GW) as of March 31, 2021, with a path to increase to 13 GW based on our recently announced expansion plan. In 2021, we announced plans to invest \$680 million to expand our American solar manufacturing capacity by 3.3 GW. Our Ohio manufacturing footprint makes us the largest solar manufacturer in the United States and the Western Hemisphere.



#### **Responsible Solar**

At First Solar, we have long understood that we have a responsibility towards our planet, our communities, and our customers. This responsibility drives our sense of purpose — "the why" that inspires every one of our thousands of employees worldwide who have committed themselves to our journey to lead the world's sustainable energy future.

Since the beginning, we have placed sustainability at the heart of everything we do, focused not on meeting industry standards, but exceeding them and setting new ones. This is why we have a long history of establishing benchmarks in recycling, health and safety, responsible supply chain management, transparency, resource-efficient manufacturing and the carbon and water footprint of our technology.



#### **ENVIRONMENTAL**

- Lowest environmental footprint in the industry
- Resource-efficient and RE100-committed operations
- Industry leading high-value
   PV recycling services





#### **SOCIAL**

- Promote a safe, inclusive and diverse workplace
- Engage in local communities and contribute to a just transition
- Responsible sourcing with zero tolerance for forced labor





#### **GOVERNANCE**

- ESG oversight at Board level
- Transparent reporting and disclosure
- EPEAT Silver Rated
- Member of the Responsible Business Alliance (RBA)

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### Responsible Solar

Solar should never come at the price of people or the planet.

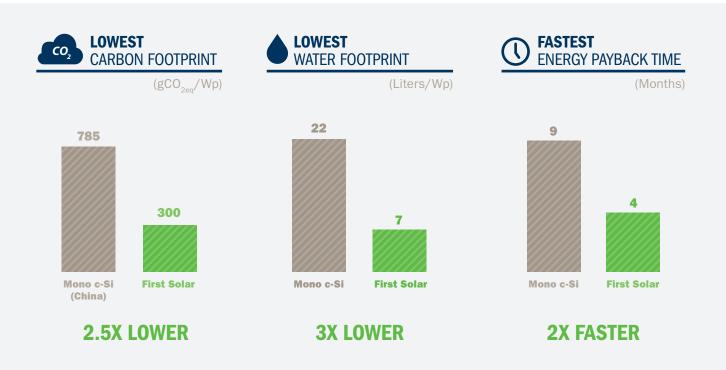
#### SOURCING LIFECYCLE MANAGEMENT · Converting mining by-products · Our high-value recycling into the most eco-efficient PV process recovers more than 90% technology of module materials for reuse · Comprehensive supply chain Provides high quality secondary management: policies, auditing resources for new PV panels and transparent reporting and products · Respect for human rights is • 1 kg of CdTe semiconductor non-negotiable can be recycled 41X, producing electricity for 1,230 years **Unparalleled transparency** and traceability **Providing circular solutions for** a resource-constrained world **MANUFACTURING OPERATION** Integrated and resource-efficient · PV panels can account for up manufacturing under one roof to 80% of a PV installation's · End-to-end manufacturing in environmental impacts. 4.5 hours vs. up to 3 days Our resource-efficient manufacturing process results in: Up to 50% less air pollutants • 2.5X lower carbon footprint than c-Si manufacturing in China • 3X lower water footprint **Addressing the** energy-water-health nexus • 2X faster energy payback time than c-Si panels made in China **Enabling faster and**

greater decarbonization

#### **Industry-Leading Environmental Profile**

All PV technologies are not created equal. Where and how a PV module and its components are manufactured significantly impacts its environmental profile. First Solar's advanced thin film modules are manufactured in a high-throughput, automated environment that integrates all manufacturing steps into a continuous flow operation under one roof, using less energy, water and semiconductor material than conventional crystalline silicon PV manufacturing. In less than 4.5 hours, a sheet of glass is transformed into a complete PV module — flash tested, packaged and ready for shipment.

Due to our resource-efficient manufacturing process, First Solar modules have a carbon footprint that is up to 2.5 times lower, a water footprint that is up to three times lower and an energy payback time that is up to two times faster than conventional crystalline silicon solar panels on a life cycle basis<sup>1</sup>. In just four months under high irradiation conditions, First Solar PV modules produce more energy than was required to create them. This corresponds to a 90-fold energy return on investment (EROI) over a 30-year project lifetime, providing an abundant net energy gain to the electricity grid.



<sup>&</sup>lt;sup>1</sup>R. Frischknecht, P. Stolz, L. Krebs, M. de Wild-Scholten, P. Sinha, V. Fthenakis, H. C. Kim, M. Raugei, M. Stucki. (2020). Life Cycle Inventories and Life Cycle Assessment of Photovoltaic Systems. International Energy Agency (IEA) PVPS Task 12, Report T12-19:2020.

With the smallest carbon footprint, fastest energy payback time and lowest life cycle water use in the industry, First Solar modules generate cleaner solar electricity than conventionally manufactured solar panels. This enables our customers to decouple their business growth from environmental impacts associated with conventional electricity generation and consumption. We are continuously working to drive down the environmental footprint of our modules. In 2020, we committed to going 100% renewable across our global operations by 2028, which will enable us to reduce the carbon footprint of our modules by 40%.

Assuming average worldwide irradiance and grid electricity emissions, 30 gigawatts (GW) of our products are being used to displace over 21 million metric tons of CO2 equivalent per year during their 30+ year lifetime. This is equivalent to powering more than 15 million average homes, planting over 350 million trees and saving over 54 billion liters of water (or 21,000 Olympic swimming pools) per year based on worldwide averages. Every year, First Solar products are displacing more than 10 times the amount of greenhouse gas emissions we emit through our global operations and supply chain.

In 2020, First Solar Series 6 modules became the first PV product to be included in the **EPEAT registry for sustainable electronics**. EPEAT is a globally recognized and independently validated ecolabel that allows for the easy identification of environmentally preferable products from socially responsible companies. EPEAT addresses the full product life cycle, including managing substances in the product, manufacturing energy and water use, product packaging, end-of-life recycling, corporate responsibility and human rights. Our Series 6 product was awarded an EPEAT Silver rating, certifying that it has exceeded the basic but stringent environmental and social criteria of a Bronze rating.







More than 50 researchers from leading international institutions have confirmed the environmental benefits and safety of First Solar's thin film PV technology over its entire life cycle; during normal operation, foreseeable accidents such as fire or breakage, and through end-of-life recycling and disposal. First Solar's Quality and Reliability labs are over 64,000 ft² (6000m²) in size globally and test over 40,000 PV modules per year for light-induced degradation, resilience to wind, snow and ice loads, fire resistance under reverse current fault conditions, material adhesiveness, breakage resistance to hail impact and performance in the event of soiling or shading. First Solar modules are tested for safety during breakage, fire, flooding and hailstorms to ensure their durability in the field. With more than 30GW sold worldwide, First Solar modules have a proven record of safe and reliable performance.

First Solar implements a robust change management system (CMS) to ensure product changes do not negatively impact product safety, reliability, environmental footprint or recyclability. Process changes and module design improvements undergo several test and validation runs before receiving final approval and being implemented across manufacturing facilities. Life cycle analysis is performed for significant product and manufacturing process modifications to assess environmental, health and safety impacts before any changes are implemented. First Solar Series 6 PV modules consist of four articles: glass module, junction box, cable, and frame. These articles do not contain substances on the Candidate List of Substances of Very High Concern (SVHC) as defined by EU REACH regulation (revision date: June 25, 2020) above 0.1% by weight per article.



#### **Powering a Circular Economy**

First Solar has a unique and long-standing leadership position in PV recycling as the only solar manufacturer with global inhouse PV recycling capabilities. We have more than 15 years of experience operating high-value PV recycling facilities on a

global and industrial scale. Recognizing the importance of responsible product life cycle management, First Solar voluntarily established the industry's first global PV module recycling program in 2005 and we have been investing in PV recycling technology improvements ever since. To learn more about First Solar's global recycling services, please see our recycling brochure and datasheet.

First Solar is powering a circular economy by transforming waste into resource – from raw material sourcing through end-of-life recycling.



Converting mining by products into a stable semiconductor



Designed for highvalue recycling



Manufacturing with less energy, water, and GHG emissions



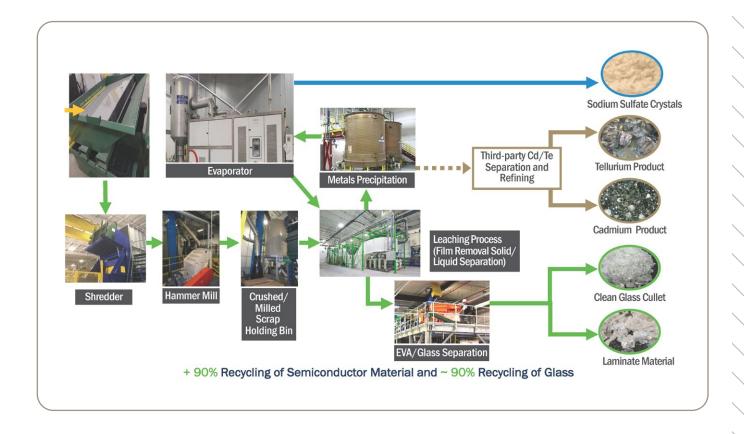
Faster CO<sub>2</sub> reductions and greater return on energy invested



Recovering over 90% of materials at end-of-life for new PV modules

While most PV recycling processes focus only on recovering high-mass fraction materials such as glass and frames (i.e. bulk recycling), First Solar's high-value recycling process goes further by recovering more than 90% of the semiconductor material for reuse in new First Solar modules and 90% of the glass for use in new glass container products. One kilogram of First Solar's semiconductor material can be recycled 41 times over, which translates into a use time of more than 1,200 years. The module frame is removed and recycled for reuse in aluminum products. In Malaysia, the recovered laminate material is reused in rubber products.

#### **First Solar Module Recycling Process Overview**



Since 2018, First Solar's routinely operated recycling plants generate zero wastewater discharge. We installed evaporators at all our recycling facilities in order to recycle wastewater and convert it into freshwater for reuse in the recycling process. In addition to recycling water, the evaporators generate sodium sulfate crystals which can be used in glass manufacturing. We are in the process of identifying glass outlets that can reuse the sodium sulfate crystals from our recycling process to further close the loop on our product's life cycle. The remainder of the recycled module scrap (approximately 5 -10%) consists of glass fines which cannot be used in secondary raw materials and are handled using other responsible waste treatment techniques. Due to the shredding and crushing involved in the recycling process, material losses are inevitable, and the recovery ratio is always less than 100%.



First Solar is among more than 370 companies to sign the **America Recycles pledge**, which aims to address the challenges facing the nation's recycling system and create a more resilient materials economy while protecting the environment.



#### **Environmental Metrics and Targets**

#### **ENERGY**

#### **Targets**

- · Power global operations with 100% renewable energy by 2028 and 100% of our U.S operations by 2026.
- global energy usage per watt produced by 2028, from a 2009 baseline (or 30% relative to 2020).

#### **SDG**



· Achieve 74% reduction in

#### **EMISSIONS**

#### **Targets**

- · Reduce absolute scope 1 and scope 2 GHG emissions by 20% by 2028, from a 2020 baseline.
- · Reduce scope 1 and scope 2 GHG emissions intensity per watt produced by 93% by 2028, from a 2008 baseline.
- · Achieve Net Zero emissions by 2050.

#### SDG



#### WATER

#### **Targets**

· Achieve 71% reduction in global water usage per watt produced by 2028, from a 2009 baseline.

#### **SDG**



#### WASTE

#### **Targets**

- · Achieve >90% waste diversion from landfills globally by 2028.
- Maintain >90% PV recycling material recovery rate.

#### **SDG**



Leading the World's Sustainable Energy Future

#### **Measuring Progress**

In addition to manufacturing PV modules with the lowest environmental impact in the industry, we are committed to reducing our operational impact. Since 2009, we've successfully reduced our greenhouse gas (GHG) emissions, energy, water and waste intensity per watt produced by implementing resource conservation and low carbon projects at our facilities and through improvements in module efficiency, manufacturing throughput, manufacturing yield, and capacity utilization.

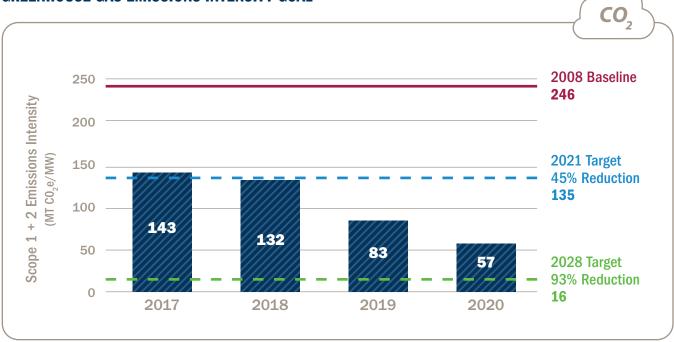
In 2020, we completed the full capacity expansion of our second manufacturing facility in Ohio. As of December 31, 2020 we had 6.3 GWDC of total installed Series 6 nameplate production capacity across all our facilities. We produced 6.1 GWDC of solar modules during 2020, which represented a 7% increase from 2019. The increase in our production capacity and throughput, along with the incorporation of resource efficiency measures into new buildings and Series 6 tool designs and processes, helped significantly reduce our GHG emissions-, energy-, and water- intensity in 2020 as a result of our transition from Series 4 to Series 6 manufacturing. In 2020, our absolute GHG emissions, energy and water use decreased due to the greater manufacturing throughput and enhanced energy and water efficiency of our Series 6 manufacturing process as well as production downtime at our manufacturing facility in Malaysia for retooling.

All First Solar manufacturing sites are certified to globally recognized standards: **ISO 14001 for Environmental Management, ISO 9001 for Quality Management, and ISO 45001 for Occupational Health and Safety**. We foster a culture where environmental, health and safety (EHS) is an integral part of our associates' work and require our contractors and suppliers to adhere to our standards and commitments. **First Solar's Environmental, Health and Safety Policy is available on our website**. The policy is communicated to all associates through internal communication channels, associate meetings and notice boards throughout the facilities.

We have received global recognition for our state-of-the art environmental controls, performance and manufacturing excellence. Our facilities in Perrysburg and Lake Township have received the Ohio EPA's Encouraging Environmental Excellence Gold Level Award. In March 2020, First Solar Malaysia received the prestigious State Environmental Excellence Award from the Kedah Department of Environment in recognition of our leadership and continuous efforts to demonstrate full environmental compliance in our manufacturing operations. First Solar's Santa Clara office received the Green Business Program certification for efforts to ensure that our business operates in an environmentally friendly manner. First Solar had no environmental non-compliance cases in 2020.



#### **GREENHOUSE GAS EMISSIONS INTENSITY GOAL**



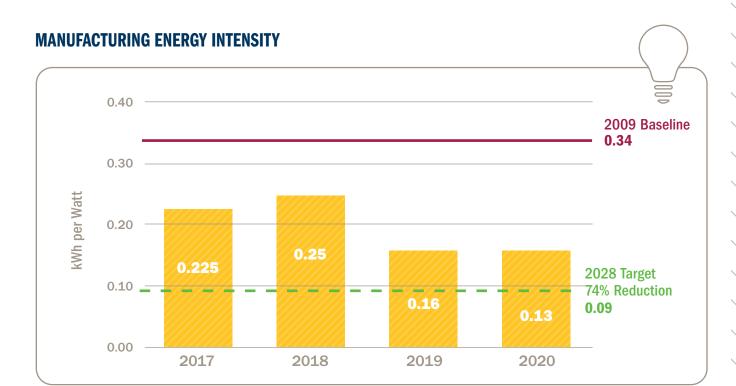
The chart depicts direct (scope 1) and indirect (scope 2) emissions of all manufacturing and recycling plants, R&D and testing facilities, EPC-owned construction equipment, company-owned operational solar projects, and company-owned vehicle fleet on a carbon intensity basis measured per MW produced.

In 2016, we set a five-year goal for 2021 to reduce our greenhouse gas (GHG) emissions intensity per watt produced by 45% compared to our 2008 baseline. Since 2008, our company-wide carbon intensity decreased by approximately 77% as a result of increased module efficiency, manufacturing throughput, and capacity utilization, decreased emissions intensity of purchased grid electricity, along with energy conservation and low carbon initiatives. In 2020, GHG emissions intensity decreased by 31% and our absolute scope 1 and scope 2 GHG emissions decreased by 25% compared to 2019 primarily due to the greater throughput and enhanced energy efficiency of our Series 6 manufacturing process as well as production downtime at our facility in Malaysia for retooling.

First Solar is committed to driving down our carbon footprint even as we continue to increase our manufacturing capacity and module throughput. After surpassing our 2021 intensity-based target three years early, we have set new science-based targets to reduce our absolute scope 1 and scope 2 GHG emissions by 20% by 2028 and achieve net zero emissions by 2050, relative to 2020. We also aim to reduce our GHG emissions intensity by 93% by 2028, from a 2008 baseline. These targets are in line with science-based climate goals to limit the global temperature rise to well below 2 degrees Celsius (WB2C), and pursuing efforts to limit it to 1.5 degrees Celsius above preindustrial levels. We aim to achieve this through increased energy efficiency, going 100% renewable across our U.S. operations by 2026, working on enabling the offsite solar market in Malaysia and Vietnam, and purchasing bundled RECs and offsets as a last resort.

In 2020, we joined RE100 and committed to powering our global operations with 100% renewable energy by 2028. We have installed onsite PV installations at our production sites in Ohio and Malaysia and at our recycling facility in Frankfurt Oder, Germany. We are now investigating opportunities to procure offsite solar electricity as part of our renewable energy strategy.

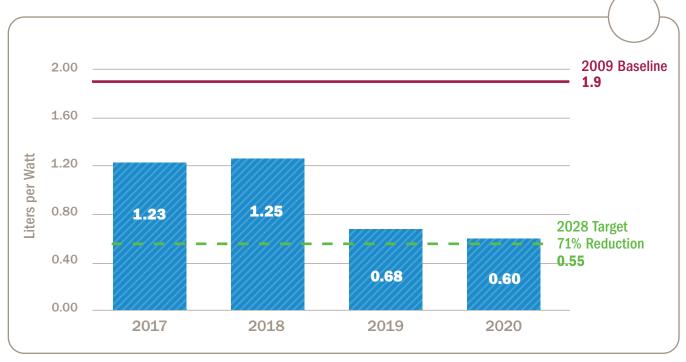




In 2020, our manufacturing energy intensity (energy consumption per watt produced) decreased by approximately 19% compared to 2019 primarily due to the greater throughput and enhanced energy efficiency of our Series 6 manufacturing process. In 2021, we set a target to improve global energy efficiency per watt produced by 74% by 2028, from a 2009 baseline (or by 30% relative to 2020).

First Solar's manufacturing energy intensity includes all processes, from the beginning of our manufacturing process to finished module. Increased manufacturing throughput combined with module efficiency improvements and energy conservation initiatives have enabled us to cut our manufacturing energy intensity per watt by more than 60% since 2009.

#### **MANUFACTURING WATER INTENSITY**



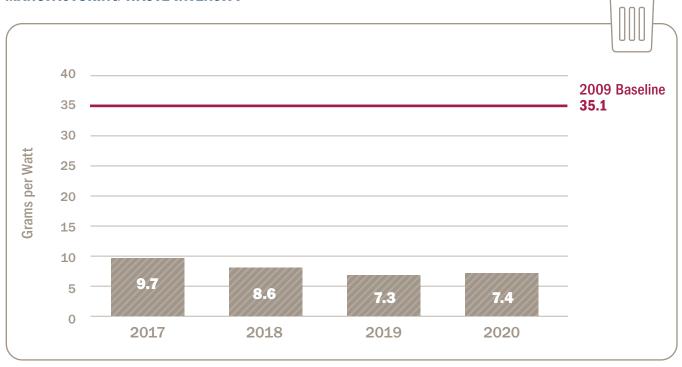
Since 2009, First Solar's manufacturing water intensity (water consumption per watt produced) decreased by 68% due to significant improvements in module efficiency, manufacturing throughput, and the implementation of water conservation and recycling projects in our manufacturing and recycling operations. In 2020, First Solar's manufacturing water intensity decreased by approximately 12% due to the increased throughput and efficiency of our Series 6 manufacturing process as well as water recycling initiatives. In total, we saved more than 290 million liters of water in 2020, equivalent to approximately 8% of our absolute water use.

While our production increased by 7% in 2020, our absolute water withdrawals decreased by approximately 5% due to the enhanced throughput and water efficiency of our Series 6 manufacturing process as well as water recycling initiatives. We continue to review water consumption patterns down to the unit-operation level in our manufacturing process and are challenging our process engineers to deliver additional water savings. We have set a target to achieve a 71% reduction in water usage per watt produced by 2028, from a 2009 baseline. Since 2018, all routinely operated First Solar recycling facilities in the U.S., Germany, Malaysia and Vietnam generate zero wastewater discharge under normal operations. Instead, the wastewater is recycled and converted into freshwater, which can then be reused in the recycling process.



We monitor and measure 100% of the water discharges from our manufacturing, recycling, and research and development facilities. In 2020, approximately 37% (or 1,353 megaliters) of First Solar's total water withdrawn from water utilities (3,655 megaliters) was discharged as wastewater from our industrial wastewater treatment systems. Approximately 76% of our wastewater was sent to a third-party (municipal wastewater facility) and approximately 24% was discharged directly to fresh surface water (river). First Solar treats wastewater at our manufacturing and recycling facilities using a batch discharge system. Once treated, the water is collected in holding tanks, which are sampled and tested to confirm compliance with regulatory limits before being discharged. No industrial wastewater leaves our site unless we have tested and approved it for discharge, even if it is being discharged to a municipal wastewater treatment plant. If the water contaminant levels are above the permitted discharge limit, it is sent for re-treatment internally.

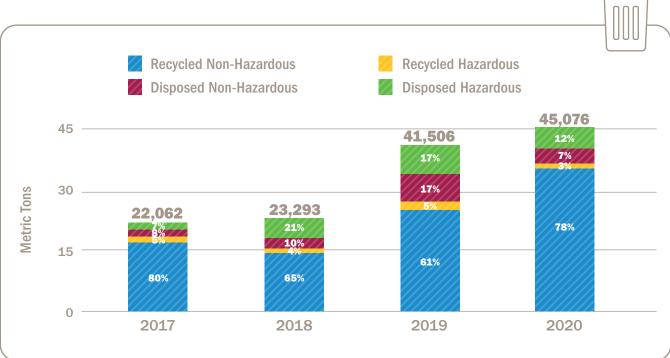
#### **MANUFACTURING WASTE INTENSITY**



First Solar's manufacturing waste generation intensity (grams per watt produced) has decreased by nearly 80% since 2009 as a result of increased module and manufacturing efficiency combined with recycling and waste minimization projects. In 2020, our manufacturing waste intensity increased slightly by 1% due to production downtime for retooling at our facility in Malaysia.



#### **WASTE BY TYPE AND DISPOSAL**

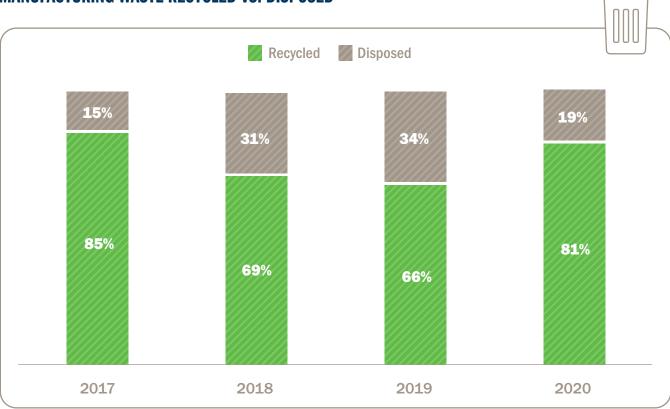


This graph depicts First Solar's absolute manufacturing waste produced in metric tons with a percentage breakdown by type and destination. Absolute waste generation increased in 2020 by approximately 8% primarily due to the increase in production.

First Solar is committed to reducing and recycling hazardous waste in line with our environmental management system objectives of minimizing waste and preventing pollution. Since 2012, we have reduced our hazardous waste generation per watt produced by more than 40%.

Hazardous waste is classified according to the definition used by the countries in which we operate, e.g. under the Environmental Quality (Scheduled Wastes) Regulations in Malaysia, Law No. 55/2014/QH13 on Environmental Protection in Vietnam, and the Resource Conservation and Recovery Act in the U.S.





This graph depicts waste recycled and disposed by First Solar's manufacturing and recycling facilities in Ohio, Malaysia, and Vietnam. The data includes modules that we recycle onsite; both manufacturing line scrap and modules returned from the field, along with many other manufacturing byproducts that are recycled. The data does not include modules that are being recycled at our recycling facility in Germany.

The amount of waste disposed increased in 2018 and 2019 due to the decommissioning of Series 4 manufacturing equipment and the ramp in production. Increasing recycling capacity and moving to 24/7 recycling helped improve the percentage of waste recycled in 2020. Overall, of the total material First Solar sends off-site, more than 80% is sent for beneficial reuse and not to landfill.

#### **2020 RECYCLING AND RECOVERY ACHIEVEMENT**

The material recovery rate of First Solar's state-of-the-art module recycling process remains unchanged. We continue to recover more than 90% of the semiconductor material, more than 90% of other metals, and 90% of the glass from recycled First Solar modules. The glass cullet is reused in new glass products and the unrefined semiconductor material is sent for further processing to be reused in new First Solar modules. In Malaysia, our laminate material is being recycled for reuse in products such as rubber mats, bicycle handles, and shoe soles, thereby further closing the loop on our product's life cycle. The following table includes data from our recycling facilities in Ohio, Malaysia, Vietnam and Germany.

Metric	Unit	Global
Total collected	Metric tons	40,199
Total recycled - metals (not including semiconductor materials)	%	3.2
Total recycled - semiconductor materials	%	0.8
Total recycled - glass	%	89
Total recycled - other materials	%	2
Total disposed - sent to a thermal with energy recovery facility	%	1
Total disposed - sent to a thermal or landfill facility for disposal	%	4
Recycling material recovery rate*	%	>90
Percentage products or components prepared for reuse**	%	0
*Recycling rate is the quotient of Total recycled and Total collected.		

<sup>\*\*</sup>Refers to products or components that are used again for the same purpose for which they were conceived without any pre-processing, e.g. refurbishment.

First Solar PV Module Recycling Material Recovery Achievements			
Glass	= 90 mass-%		
Metals (not including semiconductor materials)	≥ 90 mass-%		
Semiconductor Materials	≥ 90 mass-%		



# Responsible Sourcing.

#### **SCREENING**

All new suppliers undergo a rigorous qualification process using a balanced scorecard which focuses on Quality, Cost, Flexibility, Service, Technology and Sustainability. We regularly map our supply base and conduct an assessment to identify potential high-risk suppliers based on industry and geography by using third-party indexes on global slavery, forced labor and other ESG aspects.

# 1

#### REPORTING

We publicly report on the environmental and social performance of the suppliers we audit in our sustainability report.

At First Solar, we take a comprehensive approach to responsible sourcing-from our policy, supplier contracts, screening, mapping and auditing, to training and reporting.

4

3

### CONTRACTUAL AGREEMENTS

Under the terms of First Solar's master supplier contracts, suppliers must represent and warrant that they will not use child, slave, prisoner or any other form of forced or involuntary labor, or engage in abusive employment in the supply of goods or provisions of services. Suppliers are also required to comply with all fair labor standard laws, First Solar's Code of Conduct and Corporate Policies, as well as the RBA Code of Conduct.

#### **TRAINING**

We provide Transparency across Supply Chain training to all associates involved in procurement. The training includes the following objectives: recognizing and communicating awareness of human trafficking risks relevant to First Solar's business; ensuring compliance with the California Transparency in Supply Chains Act (SB 657) and global human rights regulations; and identifying and avoiding trafficked labor in each specific business unit at First Solar.

#### **AUDIT**

We audit new and high risk suppliers on environmental management, health and safety, labor, human rights, and ethics by leveraging the RBA Code of Conduct as a framework. In 2021, First Solar became a member of the Responsible Business Alliance which gives us access to their advanced due diligence tools and programs, and will enable us to conduct third-party audits of potential high-risk suppliers by leveraging their Validated Assessment Program (VAP) — a leading standard for onsite compliance verification and effective, shareable audits. As of 2021, we will initiate independent third-party audits on potential high-risk suppliers through the RBA.

#### **Supply Chain Overview**

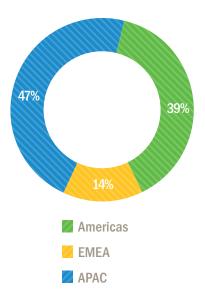
Our thin film module manufacturing process uses approximately 30 types of raw materials and components to produce a solar module. Critical raw materials and components in our manufacturing process include CdTe, front glass coated with transparent conductive oxide, organics such as photo resist, tempered back glass, frames, packaging components such as interlayer, cord plate/cord plate cap, cables and solar connectors.

First Solar has a global set of specifications for the materials used in our products which results in a tightly controlled supply chain with unrivalled traceability and quality products. We also own and operate the facilities which manufacture our modules- turning a sheet of glass into a completed module all under one roof. In contrast, many traditional tier one crystalline silicon PV manufacturers have multiple products, processes and bill of materials with a sprawling supply chain, which includes multiple process steps (polysilicon/ingots/wafers/cells/modules) often across multiple continents, resulting in increased risks relating to variability, quality, reliability and traceability.

As part of our sourcing strategy, we are enabling suppliers that are near to our manufacturing locations, thereby reducing the transportation costs, environmental footprint as well as the lead times for such materials. As part of our sourcing strategy, we are actively working on regionalizing supply at our manufacturing facilities.

In 2020, First Solar spent more than \$1.7 billion on our global supply chain. Our data includes our manufacturing bill of materials, project spend, capital spend and indirect expenses. The data is based on the region purchase orders are issued to. Approximately 37% of our global spend was spent on local suppliers in the U.S. to support our module manufacturing operations and project development business in 2020. In total, we estimate we have created over 24,000 direct, indirect and induced jobs across the supply chain worldwide. More than \$10 million was awarded to women-, minority-, and disabled veteran-business enterprises (WMDVBE) in 2020, based on actual spend.

# 2020 Supplier Spend by Region (%)







<sup>&</sup>lt;sup>2</sup>The estimated supply chain jobs are based on calculations provided by the University of Massachusetts Department of Economics and Political Economy Research Institute (PERI) in The Economic Benefits of Investing in Clean Energy. Direct jobs= 5.4 jobs/\$1M spend; Indirect Jobs= 4.4 jobs/\$1M spend; Induced jobs= .4 jobs (Direct + Indirect).

GRI Indicator	Title	2020 Disclosure	Social and Environmental impacts used for screening
414-1	New suppliers that were screened using social criteria	33%	Suppliers are screened on the following social criteria:     Clean and safe facilities     Minimum wages     Working hours (allowing at least one day off per week)     Health and safety practices     Non discrimination     Freedom of association and collective bargaining     Humane treatment and prevention of harassment or abuse     Prohibition of child labor     Prohibition of forced or compulsory labor     Collective bargaining     Business ethics (including corruption, extortion, embezzlement, conflict of interest, bribery, excessive gift giving, disclosure of information, intellectual property, fair business advertising and competition, privacy and non-retaliation.)     Conflict minerals
414-2	Negative impacts on social impacts in supply chain and actions taken	0	Due to the Covid-19 pandemic, we were only able to conduct one onsite audit in 2020. This supplier had no potential negative social impacts based on their EHS audit score. First Solar is working to drive supplier improvement in Quality and EHS with suppliers.
308-1	New suppliers that were screened using environmental criteria	33%	Suppliers are screened on the following environmental criteria:  • Environmental management systems  • Pollution prevention and resource reduction  • Solid waste management  • Hazardous substances management  • Environmental permits  • Air emissions monitoring and management  • Water management  • Energy consumption and GHG emissions
308-2	Negative environmental impacts in the supply chain and actions taken	0	Due to the Covid-19 pandemic, we were only able to conduct one onsite audit in 2020. This supplier had no potential negative environmental impacts based on their EHS audit score. First Solar is working to drive supplier improvement in Quality and EHS with suppliers.

#### **Human Rights Standards and Practices**

First Solar is committed to protecting human rights, enforcing fair labor practices and addressing the potential risks of forced labor, child labor, human trafficking and slavery across our operations and supply chain. Our Labor and Human Rights Policy, which references international human rights declarations and due diligence guidelines, applies to all First Solar associates, officers, directors, contractors, suppliers and business partners, regardless of geographic region.

Our Chief Compliance Officer manages First Solar's Global Compliance Organization which oversees our ethics and compliance program. The goal of this organization is to implement policies, processes, training, monitoring and general awareness programs to promote ethics and compliance with applicable legal and regulatory standards. Subject to the requirements of local law, and after due diligence and full and fair investigation, any employee found to have directly engaged in or knowingly engaged suppliers engaged in slave labor or human trafficking will be subject to immediate termination of employment.



#### **Conflict Minerals**

First Solar is committed to responsible sourcing and operating a supply chain free of conflict minerals. We comply with and support the goals established under Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd- Frank Act") on conflict minerals and condemn human rights abuses associated with the extraction, transport or trade of minerals and any direct or indirect support to non-state armed groups or security forces that illegally control or tax mine sites, transport routes, trade points or any upstream actors in the supply chain. First Solar's **Conflict Mineral Policy** is published on our website, communicated to our suppliers, and incorporated into supplier contracts. We require all our direct suppliers to agree to and follow these principles. We have an operating, cross-functional internal governance team with representatives from our supply chain, compliance and legal departments to ensure policy statements and control processes are followed.

As we do not source directly from smelter or refiner processing facilities, we rely on the Responsible Minerals Initiative's Responsible Minerals Assurance Program (RMAP), previously known as Conflict-Free Smelter Program, to oversee and coordinate third-party audits of these facilities. The RMAP audit protocols and procedures require the smelters or refiners to engage specially trained third-party auditors to independently verify that these smelters and refiners can be considered conflict free. Our conflict minerals risk mitigation plan defines supplier-risk management strategies, including (i) continued procurement, (ii) assistance in identifying alternate sources of supply, and (iii) disengagement, the severity of which is at the discretion of our executive management. We aim to advance the effectiveness of our due diligence efforts and further enhance our compliance processes by, among other things, encouraging non-RMAP validated processing facilities to become validated either through the RMAP or a RMAP-recognized third-party audit program. First Solar's **Specialized Disclosure and Conflict Minerals reports** are available on our public website (see "Specialized Disclosure" tab in SEC Filings).







#### **Our Culture**

At First Solar, innovative and passionate people, working ethically and safely, form the foundation of our success. We generate results through a culture of agility, collaboration and accountability. Our internal Vision, Mission and Culture includes behaviors that support safety first, mutual respect for all associates, empowered collaboration between functions and individuals, and personal ownership of decisions, performance and results. As a global culture, we value multiple voices and perspectives. This diverse tapestry of different viewpoints, approaches and needs helps us to produce better products and services.

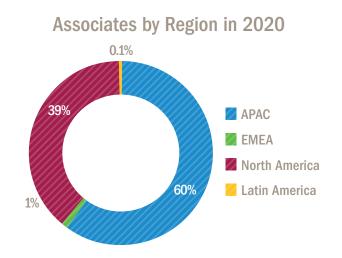




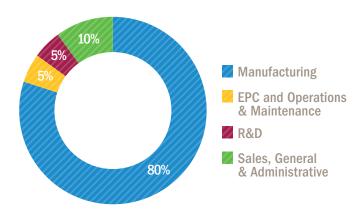


#### **Working At First Solar**

As of December 31, 2020, we had approximately 5,100 associates (our term for full and part-time employees) compared to approximately 6,600 in 2019. The change in the number of associates was attributed to the ramp down of our Series 4 manufacturing lines and the sale of First Solar's U.S. Project Development and North American 0&M businesses which was completed in 2021. Approximately 80% of our associates work in manufacturing and approximately 5% worked in our systems business as of December 31, 2020. The remainder of our associates are in research and development, and sales, marketing, general and administrative positions. In 2020, five associates were part-time while the rest were full-time.



#### Associates by Function in 2020





#### **Inclusion, Diversity & Belonging**

At First Solar, inclusion, diversity and belonging is more than just a program or an initiative, it is a transformation. We recognize that diversity and inclusion (D&I) is a driving force in the success of our company and believe in creating an environment where different voices are encouraged, heard and valued including, gender, race, ethnicity, sexual orientation, military status, generation, abilities, perspectives, backgrounds and personalities.





First Solar has integrated inclusion, diversity and belonging goals and measures throughout, translating our global strategy into local action. We believe in comprehensive actions at every level to drive foundational change in the culture and promote a diverse and inclusive workplace.

**LEADERSHIP:** We believe when our most senior leaders own D&I and make themselves a part of the diversity and inclusion process, it sets the tone for the rest of the organization to follow suit. Over the past year, we added gender, racial and multicultural diversity into the Executive Leadership Team and every external candidate search includes diverse individuals in the selection pool. In 2020, we revised our Nominating and Governance Committee Charter to underscore that we are "actively seeking highly qualified women and minority candidates as part of the search process for new Board members," and better defined diversity to include background, gender, race and ethnicity as a reflection of our commitment to diversity on our Board of Directors. In our 2021 proxy statement, we disclosed the racial composition of our Board of Directors. As of March 2021, approximately 30% of our Board of Director seats are occupied by women, and each of our Board committees have female representation.

**TALENT ACQUISITION:** At First Solar we strive to hire outstanding, qualified talent globally to further our mission. Consistent with this, we take a consciously inclusive approach in our hiring practices and seek to build globally diverse, high performing teams. We post our open jobs on more than 25 diversity and veteran-focused recruitment sites and every external candidate search includes diverse individuals in the selection pool. Our Talent Acquisition team reviews applicant and new hire metrics quarterly, including metrics related to diversity. In addition, we monitor ethnicity and gender diversity on an annual basis through our Affirmative Action Policy (AAP) and reports, and take action as appropriate.

PAY AND PROMOTIONS: At First Solar, we follow a Pay-for-Performance model, rewarding our associates for achieving goals and associated metrics. Promotions are managed within our Global Career Framework which provides a common language to describe career pathways, job requirements and facilitates talent movement. Within the Framework, we use a Global Grading System, a rigorous process for job leveling and a consistent and systematic approach to evaluate individual positions in the context of the entire company. We review pay on a regular cadence to check for internal and external equity including minimum wage and living wage assessments across our global operations.

**GLOBAL AND REGIONAL DIVERSITY NETWORKS:** We continue to establish global and regional diversity networks and affinity groups consistent with First Solar's culture and philosophy. The Global Women's Network (GLOW) launched in 2019 and our Black and African American Network launched in 2020. In 2021, we plan to launch the Hispanic and Latin American Network. Sponsored by our CEO, these Networks aim to attract talent, develop future leaders through mentoring, sponsorship, networking, and a collaborative learning culture and enrich our dialogue across the business, forging external partnerships that bring new perspectives. First Solar's women and minority networking and affinity groups such as Tempe's Curie Club, the Perrysburg Women's Networking Group, and Kulim's Women@FirstSolar, contribute to both formal and informal efforts to promote D&I across the company.





**BENEFIT PROGRAMS AND POLICIES:** First Solar continues to develop programs and policies such as alternative work schedules to enable women to work part-time while transitioning back into the workforce. First Solar also offers four-week paid parental leave to all U.S. associates who meet basic employment requirements to enable associates and their families to care for and bond with a newborn child, a newly adopted child, or a newly placed foster child.

**ENGAGEMENT AND INCLUSION:** In 2021, we conducted a global inclusion survey and incorporated an inclusion index to provide a baseline for future surveys. The global inclusion index for 2021 was 81%, and a number of areas including fair promotions and feeling respected and valued improved compared to our 2019 associate engagement survey.

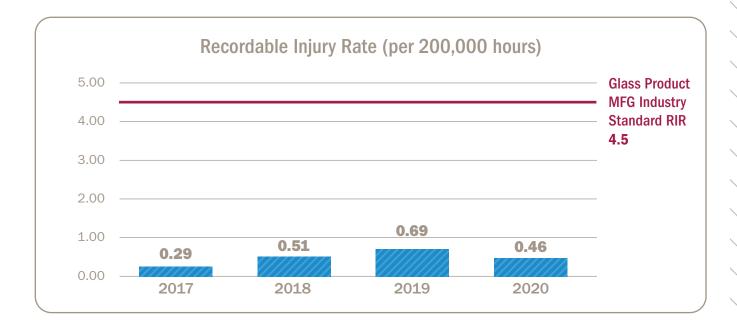
**EXTERNAL PARTNERSHIPS:** First Solar collaborated with the State of Black Arizona for the launch of our Black and African American network in 2020. Being an inclusive workplace means being aware of who may be excluded. This requires reviewing processes, systems and resources to eliminate potential barriers to associates with disabilities. In 2020, First Solar participated in a **webinar on accessibility advocacy** with The Ability Center of Greater Toledo. Our internal accessibility group regularly shares tips on how to leverage technology to make information accessible to all associates.

**COMMUNITY IMPACT:** In 2021, First Solar invested \$11 million in efforts to revitalize American communities and bridge racial gaps in health, wealth, and opportunity. As part of the initiative, First Solar purchased \$10 million in Impact Notes, or fixed-income debt securities, issued by the Local Initiatives Support Corporation (**LISC**) which help fund community and economic development projects across 36 cities and 2,100 rural counties in 45 states. First Solar also made a \$1 million Transformational Deposit in Mississippi-based **HOPE**Credit Union to provide business, mortgage, and consumer loans, and other financial services to Black communities across the Southern United States.

First Solar is an Equal Opportunity Employer (EOE), and we prohibit discrimination based on race, color, religion, sex, age, national origin, veteran status, disability, sexual orientation, or gender identity. First Solar makes good faith efforts to improve year over year our representation in those areas. **First Solar's EOE policy** is available online.

#### **Occupational Health And Safety**

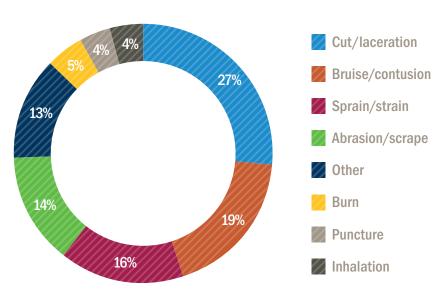
At First Solar, our goal is to achieve an injury-free workplace. Since 2008, our recordable injury rate (RIR) has decreased by approximately 82% (from 2.6) by establishing a strong safety culture throughout the company and ensuring an understanding of First Solar's Safety Policies and Procedures. Our company-wide recordable injury rate is nearly 10 times lower than the glass manufacturing industry average. In 2020, First Solar's recordable injury rate decreased by 33% as a result of our strong safety culture. First Solar's RIR includes all manufacturing, R&D, and office personnel. An injury is considered recordable if it requires medical attention beyond first aid.





All First Solar associates receive legally required health and safety training as well as routine refreshers on health and safety topics pertinent to their job requirements. First Solar requires all contractors to work under our safety policies, programs and procedures. 100% of First Solar's workforce and management team are represented by formal joint management-worker health and safety committees. Associates from all levels and functions can participate in the cross-functional safety committees which meet on a regular basis to review incidents and implement corrective actions. The site safety committees report to the EHS Steering Committee on a quarterly or more frequent basis.

#### Injuries by Type (2020)



Safety data includes all global manufacturing and offices.



#### **Covid-19 Pandemic Response**

In line with guidance from the World Health Organization, local health authorities and governments, First Solar took sweeping measures over the past year to help inhibit the spread of COVID-19 across our global footprint. We established an internal COVID-19 Preparedness and Response Plan along with company policies to implement all necessary safety precautions to protect our associates. Key preventative actions at manufacturing facilities included temperature checks for all associates and visitors, sanitizing of all work stations after each shift, mandatory mask use and social distancing, routine training and communications on best practices, and curtailed travel. We established a dedicated intranet page with the latest COVID-19 news and resources, provided routine updates via an internal newsletter, and established 24/7 answer lines for all associates.

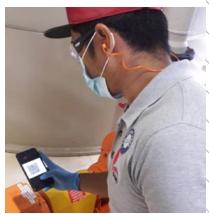
First Solar expanded benefits and new coverage to address multiple scenarios for all associates e.g. expanded telemedicine coverage; back-up child care coverage; paid quarantine; expanded Extraordinary Circumstance Leave. We offered fast and reliable COVID-19 testing and set up an onsite vaccination clinic. We provided additional vacation time and extra overtime plus incentive pay for those associates who had to work on site throughout the pandemic. First Solar implemented a FLEX working environment for associates who can work a more flexible schedule ranging from Full-time office (essential workers) to working in an external location such as a home office. First Solar also offered Financial Wellness Seminars and one on one WebEx sessions for all associates, stopped 401(k) Loan deductions through the end of 2020, waived benefit deductions for Hourly/Non Exempt associates working during the Stay at Home Order, and extended Military leave pay by up to 30 work days.

During a surprise audit in April 2020, First Solar's manufacturing site in Vietnam achieved the best safety score out of 15 large manufacturing facilities in the Ho Chi Minh City (HCMC) area. Five auditors from the HCMC Cu Chi Center for Disease Control (CDC) visited the site on April 17, spending two and a half hours reviewing the actions taken by First Solar to mitigate COVID-19 transmission risks. The auditors praised First Solar Vietnam's preventative actions to mitigate COVID-19 transmission risks, including our internal safety protocol communications, temperature scanning, sanitizers, cleaning, and social distancing practices for associates and visitors in the office, manufacturing floor and on the shuttle bus.















#### **Sustainability Ambassadors Program**

As part of our efforts to "think globally and act locally," we launched a global internal Sustainability Ambassadors program in 2018. The program enables First Solar associates at various sites to identify and implement local sustainability initiatives. Despite the pandemic and many associates working remotely, our Global Sustainability Ambassador Program continued to thrive in 2020 thanks to the passion and creativity of our ambassadors. Notable achievements in 2020 included:

- Diverted more than 4,700 metric tons of waste from landfill as part of our global "Reduce-Reuse-Recycle" initiative by decontaminating hazardous waste, recycling centrifuge sludge, collecting e-waste, and converting coffee into compost
- · Switched to paperless maintenance and purchasing practices
- Participated in local clean ups and raised environmental awareness through sustainability workshops
- Contributed to local communities by volunteering and donating personal protective equipment, food, and IT equipment to lowincome families disproportionately impacted by the pandemic
- Donated 160 units of blood as part of a blood drive at our Vietnam manufacturing site
- Hosted a virtual Earth Day with associates pledging to take part in 200+ environmental actions



#### **Global Charitable Giving Overview**

First Solar makes four kinds of donations as part of our Global Charitable Giving Program: corporate donations (i.e., donations made through the First Solar Corporate Charitable Fund), site donations (i.e., donations made through First Solar local offices and manufacturing sites), project-related donations (i.e., donations associated with a First Solar project), and business development donations (i.e., donations related to First Solar sales activities). First Solar donated more than \$473,000 in 2020 in total cash and in-kind contributions.

Global Charitable Giving Program	Туре	2019	2020
Manufacturing and Office Site Donations	Community	\$186,538	\$306,543
<b>Project-Related/Business Development Donations</b>	Community	\$247,305	\$84,500
<b>Corporate Charitable Fund Donations</b>	Charitable	\$77,000	\$82,000
	Total	\$510,843	\$473,043



First Solar Vietnam sponsored the Automation Competition at Ho Chi Minh City University of Technology and Education in October 2020 with the aim of giving the students the opportunity to gain training on the automation industry. The Automation Competition 2020 is a public-private partnership between USAID, Arizona State University,

Rockwell Automation, First Solar and other private companies and university partners. Two talented graduates won a First Solar internship which provides opportunities for hands-on learning and professional development. First Solar Vietnam also donated \$5,000 to the AmCham Women in Engineering Scholarship (ACWES) to support and encourage female students to study science, technology, engineering, and mathematics (STEM) fields and pursue careers in Vietnam.







First Solar Vietnam donated 286 Series 6 solar modules which will supply up to 70% demand of the International Centre for Interdisciplinary Science and Education in Quy Nhon city in central Vietnam. The ICISE center is a non-profit organization that aims to promote interaction, collaboration and friendship among scientists. The

Centre has organized over 60 international conferences and other events, welcoming over 5,500 international professors, doctors, and scientists including Nobel Laureates from all over the world.



# Across the company, First Solar contributed to efforts to mitigate the impacts of Covid-19 on the communities we live and work in.

First Solar Malaysia contributed more than \$75,000 as part of our Covid-19 pandemic drive to support the government and local community from March to

December 2020. First Solar Malaysia donated personal protective equipment, face masks, gloves and hand sanitizers to local hospitals, frontline workers, agencies and impacted residents in the Movement Control Order area. First Solar Malaysia also partnered with the Kulim Industrial Tenants Association (KITA) to organize a food drive and distribute food supplies to residents in the Baling and Kulim area.

First Solar Vietnam donated \$25,000 in partnership with Amcham Vietnam to provide critical equipment and support the Ho Chi Minh Center for Disease Control's response in managing COVID-19 and other infectious diseases.

First Solar Perrysburg donated 42,000 gloves and hundreds of masks to three Toledo-area hospitals: Promedica, Mercy Health and St. Luke's.

First Solar's Santa Clara office donated 210 N95 respirators and 20,000 gloves to Valley Medical Foundation.

First Solar's Mesa and Tempe offices donated more than 1,000 N-95 and N-100 masks as well as used computer equipment to low-income families so students can stay connected to their classes.









#### We partner with NGOs to improve the quality of life in communities around the world to:

- Empower the next generation through education for sustainable development
- Ensure access to clean energy and water
- · Reduce inequality through economic inclusion, diversity and equal opportunity
- · Promote a circular economy through sustainable production and responsible consumption

#### **Charitable Giving Initiatives**

\$15,000 grant to support direct assistance Covid-19 programs in Tempe, Arizona.

**NGO/PARTNER** 

Tempe Community Council

YEAR

2020

SDG



\$10,000 grant to support the operation costs of an agency in Toledo, Ohio that provides a storytelling, solutions-oriented research "thinkhub" focused on inspiring youths and young adults in post-industrial cities to exchange ideas and envision the future of their region.

**NGO/PARTNER** 

**Midstory** 

**YEAR** 

2020

SDG



\$25,000 grant to support the 2020 Kids to Parks Day Program which gives underserved schools in all 50 states and US territories an opportunity to learn about nature, park stewardship, outdoor recreation, STEM and history by experiencing their local, state and national parks and public lands.

**NGO/PARTNER** 

**National Park Trust** 

YEAR

2020

**SDG** 



\$10,000 endowment to support the First Solar Corporate Scholarship Program, benefitting 10 students majoring in subjects ranging from Finance to Environmental Studies and Mechanical Engineering.

**NGO/PARTNER** 

Ohio Foundation of Independent Colleges

YEAR

2020

SDG



\$10,000 grant to support the college solar ambassadors that will assist nonprofits seek solar project funding.

NGO/PARTNER

**RE-volv** 

YEAR

2020

**SDG** 



\$12,000 grant to support the launch of a green education initiative and purchase recycling equipment for residents with intellectual disabilities in Holland, Ohio.

NGO/PARTNER

**Anne Grady Services** 

YEAR

2020

SDG





#### **ESG Oversight At First Solar**

At First Solar we define sustainability as our "capacity to endure and scale." Our sustainability approach enables us to achieve long-term growth while following environmentally and socially responsible practices. First Solar's sustainability program drives our commitment to the triple bottom line of "people, planet and profit" through our approach to responsible life cycle management, environmental footprint analysis, resource efficiency and greenhouse gas emissions reduction, waste management, global charitable giving, operational cost reduction, responsible sourcing and human rights, as well as our global PV module recycling services. We are committed to minimizing the environmental impacts and enhancing the social and economic benefits of our products across their life cycle. First Solar's **Corporate Sustainability Policy** is available on our website.

In 2020, First Solar identified seven key environmental, social and governance (ESG) focus areas based on our latest materiality assessment (Circular Economy, Energy, Emissions & Resource Efficiency, Inclusion, Diversity & Belonging, Innovative Products, Public Policy & Public Sentiment, Responsible Sourcing and Human Rights, and Reliable Products) and formally established ESG oversight at the board and executive levels. Each key focus area is managed by ESG focus leaders who define, measure and report on progress to the ESG Steering Committee on a quarterly basis. The ESG Steering Committee consists of First Solar's Executive Leadership Team (ELT) which has the highest level of direct responsibility for ESG matters within the company. The ESG Steering Committee and focus leaders report into the Board of Directors on a biannual or more frequent basis. The Board's Nominating and Governance committee has overall oversight of ESG strategy and policies, as defined in their charter.





#### **Board Of Directors**

First Solar's business is conducted under the oversight of our Board of Directors. The primary responsibility of the Board is to oversee and review senior management's performance of First Solar's business operations. Our Board of Directors is composed of 11 directors, including nine independent directors and two non-independent directors, our Chair of the Board and our CEO. Each of the chairs of our Board committees are held by an independent director. In 2020, we revised our Nominating and Governance Committee Charter to underscore that we are "actively seeking highly qualified women and minority candidates as part of the search process for new Board members," and better defined diversity to include background, gender, race and ethnicity. As of 2021, approximately 30% of our Board of Director seats are occupied by women, with each Board committee having female representation. Additionally, in our 2021 proxy statement we disclosed the racial composition of our Board. In addition to this 2021 Sustainability Report, we intend to release our first Board of Directors Diversity & Inclusion Transparency Report in the coming months. This report will provide greater clarity into our Board's diversity story, describe our Board diversity commitments, and highlight our implementation strategies. For more information, please visit our website: http://www.firstsolar.com/en/About-Us/Leadership

#### **Executive Management**

First Solar's CEO and executive management team are responsible for managing the company's day-to-day business operations, including the preparation of financial statements and short- and long-term strategic planning. Over the past year, we added gender, racial and multicultural diversity into the Executive Leadership team as a reflection of our commitment to diversity.

For more information, please visit our website: <a href="http://www.firstsolar.com/">http://www.firstsolar.com/</a></a>
<a href="mailto:en/About-Us/Leadership">en/About-Us/Leadership</a>

#### **Ethical Business Conduct**

First Solar holds ethical business conduct as a core principle and we are committed to operating at the highest ethical standards in every area of our business, everywhere we do business. First Solar's **Code of Conduct**, **Relentless Integrity: How We Conduct Business Ethically**, demonstrates our commitment to this principle and guides the company's business conduct. Our Code of Conduct applies to everyone, from members of the Board of Directors to our officers, associates and our valued partners. We have a long-standing commitment to conducting our business in compliance with applicable laws and regulations. This commitment, along with our culture of agility, collaboration and accountability, defines our accepted behaviors and enables us to advance our mission to provide cost-advantaged solar technology

through rigorous safety practices, innovation, customer engagement, industry leadership and operational excellence. First Solar has a Chief Compliance Officer, who reports regularly to the Board of Directors and the Executive Leadership Team on the status of our ethical culture and developing processes and procedure to further monitor and advance it to the highest standards. First Solar has an existing mechanism for reporting any misconduct or policy violations via various channels, including our **Ethics Hotline**. Any First Solar associate, supplier and other external stakeholder can report concerns free of any retaliation, discrimination, or harassments via our third-party operated Ethics Hotline which provides an anonymous and confidential solution to communicate any concerns on conduct.

#### **Collective Bargaining And Freedom Of Association**

First Solar recognizes that in the locations where we operate, employees have the right to freely associate or not associate with third-party labor organizations, along with the right to bargain or not bargain collectively in accordance with local laws. First Solar respects those rights and is committed to creating an environment of open communication where employees can speak with their managers about their ideas, concerns or problems, and work together to address workplace issues.

#### **Anti-Corruption**

First Solar performs risk assessments that consider the possibility of fraud and related indicators. We currently operate in, and may expand into, many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. First Solar's Global Anti-Corruption Policy requires all associates to comply with the U.S. Foreign Corrupt Practices Act (FCPA) and all other applicable local anti-corruption laws. The Global Anti-Corruption Policy prohibits bribery, kickbacks, and the giving of other improper payments to obtain or retain business and covers any person engaged to perform work on behalf of First Solar including freelancers, independent contractors, temporary contractors, independent professionals, agents and consultants. We communicate our anti-corruption and anti-bribery policies in our customer and service contracts. FCPA training is provided to associates in higher risk profile jobs and tailored according to the region. First Solar has implemented processes and procedures to help ensure compliance with all applicable anti-corruption laws. These processes and procedures are monitored and audited on an ongoing basis.



#### **Data Security And Privacy**

First Solar is committed to complying with all data protection and privacy laws applicable to our business. First Solar's global data protection compliance program operates as part of our global compliance program. First Solars's Global Data Protection Policy establishes minimum standards that First Solar and our subsidiaries must apply to personal data on a company-wide basis. All First Solar associates are required to comply with our Global Data Protection Policy, including by ensuring that they have completed the requisite training to enable them to do so. First Solar conducts periodic and as-needed training regarding the lawful and intended purposes of processing personal data, the need to protect and keep information accurate and up-to-date, and the need to maintain the confidentiality of the data to which associates have access. As needed, First Solar functions, departments or divisions may conduct more specific training related to such functions, departments or divisions processing of Personal Data. In addition, annual Cyber Security training is required for First Solar associates, and a formal cyber communication cadence provides topical awareness on a monthly basis. Non-compliance with the policy may lead to disciplinary action, up to and including dismissal or contract termination. First Solar adheres to the NIST Cybersecurity Framework, and conducts annual audits and testing of its information security and data privacy programs, engaging external partners periodically. First Solar has not experienced an information security breach in the last three years.

### **ESG Recognition and Awards**

- 2021: MSCI ESG Research AA (Leader) Rating
   Highest ESG rating in the solar industry–First Solar, Inc.
- 2021: Fast Company's World Changing Ideas Award Finalist Responsible Solar- First Solar, Inc.
- 2020: ISS ESG Corporate "Prime" Rating
   Demonstrating best-in-class environmental, social, governance performance—First Solar, Inc.
- 2020: Ohio EPA Encouraging Environmental Excellence Gold Award First Solar Perrysburg and Lake Township manufacturing facilities.
- 2020: Kedah Department of Environment State Environmental Excellence Award – First Solar Malaysia.
- 2020: EPEAT Silver Rating

  First PV product in the EPEAT registry for sustainable electronics,

  First Solar Series 6.
- 2020: CDP Climate Change A- rating
   In recognition of our leadership on climate change and disclosure and management of climate-related risks—First Solar, Inc.
- 2020: CDP Water Security A- rating
   In recognition of our leadership on water stewardship and its disclosure and management of water-related risks—First Solar, Inc.
- 2020: Global Challenges Index
   Among 50 companies making pioneering contributions to overcome global challenges such as climate change, the provision of clean drinking water, deforestation, biodiversity, population development, poverty and global governance—First Solar, Inc.
- 2019: PV Magazine Sustainability Award
   Selected joint winner in recognition of Series 6's industry leading environmental profile- First Solar Series 6.















#### **External Sustainability Initiatives**

- Carbon Disclosure Project (CDP): First Solar has participated in and publicly reported to CDP since 2011.
- Climate Leadership Council: As a founding member, First Solar supports
  the Climate Leadership Council's mission and carbon dividends plan as
  a cost-effective, equitable and politically-viable climate solution. The plan
  calls for a substantial, gradually rising, revenue-neutral carbon tax with the
  revenue distributed to citizens.
- **EPEAT:** First Solar is a member of the EPEAT Advisory Council, a non-fiduciary body formed to provide input and advice to EPEAT management. EPEAT is a globally recognized Type 1 Ecolabel which enables public and private purchasers to identify environmentally leading products from socially responsible companies. The EPEAT PV modules and inverters category launched in October 2020.
- International Energy Agency (IEA) Photovoltaic Power Systems Program
   Task Committees 12: As a member of Task 12, First Solar promotes international collaboration on PV safety and sustainability.
- International Renewable Energy Agency (IRENA): First Solar is a founding member of IRENA's multi-stakeholder Coalition for Action which works to dispel common misperceptions and factual inaccuracies about renewable energy.
- Product Environmental Footprint (PEF): First Solar is a leading member of the Technical Secretariat to develop Life Cycle Assessment-based Product Environmental Footprint Category Rules (PEFCR) for PV electricity generation under the European Commission's Single Market for Green Products Initiative Pilot process. The PEFCR for PV electricity generation were successfully finalized in 2018.
- NSF 457 Photovoltaic Module Sustainability Leadership Standard (NSF/ANSI 457- 2019): First Solar is part of the Joint Committee which developed NSF 457, the industry's first Sustainability Leadership Standard for PV modules and inverters. PV modules and inverters conforming to NSF 457 will be added to the EPEAT registry for sustainable electronics.
- RE100: First Solar joined RE100 in 2020 and committed to powering our global operations with 100% renewable energy by 2028. RE100 is a global initiative dedicated to accelerating the shift to zero-carbon grids, led by The Climate Group in partnership with CDP.

- Responsible Business Alliance (RBA): First Solar joined the RBA in 2021 as a regular member to build on our track record of responsible sourcing. The RBA is the world's largest industry coalition dedicated to supporting the rights and well-being of workers and communities in the global supply chain. First Solar is the first of the world's largest top ten PV manufacturers to join the RBA.
- Ultra Low-Carbon Solar Alliance (ULCSA): First Solar is a founding member
  of the ULCSA, an alliance of companies across the solar PV value chain
  committed to expanding market awareness and deployment of ultra lowcarbon PV to accelerate reductions in solar supply chain GHG emissions.



#### **About this Report**

First Solar's Sustainability Report was developed in accordance with the Global Reporting Initiative's (GRI) Core Sustainability Reporting Standards. This report covers significant economic, social and environmental impacts associated with our global operations. Our sustainability reporting scope focuses on our manufacturing, R&D and recycling operation impacts. Unless otherwise specified, this report includes environmental performance data from all of First Solar's manufacturing plants and our major R&D facility. The reporting period spans 1 January 2020 up to and including 31 December 2020. We have not sought third-party verification for this report; however, our greenhouse gas emissions inventories of Scope 1 and Scope 2 sources were externally verified in 2018 with limited assurance. First Solar's GHG emissions inventory is externally verified on a triennial basis with the International Standard ISO 14064 Part 31 (ISO 14064-3) as well as the WRI/WBCSD GHG Protocol.

To provide feedback on our Sustainability Report, please contact: Sustainability@firstsolar.com

#### **Sustainability Materiality Assessment**

As part of our stakeholder mapping and materiality assessment process, First Solar conducts a survey with our external-facing departments including business development, government affairs, and investor relations, to identify key aspects that significantly impact our company and our stakeholders, both within and outside our organization. First Solar's stakeholders were prioritized according to their ability to significantly influence or be significantly impacted by our company. We received 36 survey responses in 2020.

First Solar also worked with an external consultant in 2020 to supplement our internal materiality assessment and conduct internal and external interviews with associates, management, customers and investors. In addition to the survey results and interviews, we leverage the PV industry's first sustainability leadership standard (NSF/ANSI 457 – 2019) which identified relevant corporate reporting criteria for the PV industry through a multi-stakeholder process led by NSF International and the Global Electronics Council.

The table below lists all material environmental, social and governance (ESG) aspects identified through the interviews, survey results, and NSF 457 sustainability leadership standard:

Environmental	Social	Governance
<ul> <li>Circular Economy</li> <li>Energy &amp; Emissions</li> <li>Environmental compliance</li> <li>Hazardous materials</li> <li>Waste &amp; recycling</li> <li>Water &amp; wastewater</li> </ul>	<ul> <li>Community Impact</li> <li>Diversity, Inclusion &amp; Belonging</li> <li>Health and safety</li> <li>Labor practices</li> <li>Human rights &amp; responsible sourcing</li> <li>Talent attraction and development</li> </ul>	<ul> <li>Data security and privacy</li> <li>Ethics and compliances</li> <li>Governance &amp; accountability</li> <li>Product quality &amp; reliability</li> <li>Public policy</li> <li>Sustainable products &amp; innovation</li> </ul>

The material topics were mapped out based on their importance to First Solar's business objectives and their impact on stakeholders' decisions. Circular economy, community impact, data security and privacy, diversity, inclusion and belonging, as well as responsible sourcing and human rights are all predicted to increase in importance over time.



# **Stakeholder Engagement**

First Solar engages with various stakeholder groups including employees, customers, industry associations, NGOs, local communities, scientific organizations, media, investors and shareholders. The following chart depicts First Solar's approach to stakeholder engagement; including frequency of engagement by type and stakeholder group, along with key topics and concerns raised:

Stakeholder Groups	How we Engage	Engagement Frequency	Key Topics and Concerns
Employees	Training Sessions, Meetings, Newsletters, Surveys, Global Webcasts, Sustainability Ambassador program	Daily, ongoing basis	<ul> <li>Circular Economy</li> <li>Community Impact</li> <li>Energy &amp; Emissions</li> <li>Environmental compliance</li> <li>&amp; eco-efficiency</li> <li>Labor practices</li> <li>Talent attraction &amp; retention</li> <li>Training &amp; education</li> </ul>
Customers/ Technical Advisors	Meetings, Seminars & Conferences, Technical Workshops, Product Presentations	Ongoing basis	<ul> <li>Circular economy</li> <li>Data security &amp; privacy</li> <li>Economic performance</li> <li>Energy &amp; emissions</li> <li>Environmental compliance &amp; eco-efficiency</li> <li>Hazardous materials</li> <li>Public policy</li> <li>Quality &amp; reliability</li> <li>Responsible sourcing &amp; human rights</li> <li>Sustainable products &amp; innovation</li> </ul>
Investors/ Shareholders	Meetings, Earnings Calls, Analyst Days, NSF 457 standard development	Quarterly/ annually, ongoing basis	<ul> <li>Economic performance</li> <li>Energy &amp; emissions</li> <li>Inclusion, diversity &amp; belonging</li> <li>Governance &amp; accountability</li> <li>Labor practices</li> <li>Responsible sourcing &amp; human rights</li> </ul>
Local Communities	Meetings & Town Councils, Presentations to Community Organizations, School Visits, Local Tours, Training Programs	Ongoing basis	<ul> <li>Circular economy</li> <li>Community Impact</li> <li>Environmental compliance</li> <li>&amp; eco-efficiency</li> <li>Health &amp; safety</li> <li>Job creation</li> <li>Quality &amp; Reliability</li> </ul>

Government/ Regulators	Meetings & Hearings, Conference Presentations, Seminars & Workshops, Committees, Tax Audits	Ongoing basis	<ul> <li>Circular economy</li> <li>Community Impact</li> <li>Economic performance</li> <li>Energy &amp; emissions</li> <li>Environmental compliance</li> <li>&amp; eco-efficiency</li> <li>Ethics &amp; compliance</li> <li>Hazardous materials</li> <li>Public policy</li> <li>Quality &amp; reliability</li> </ul>
NGOs	External Surveys, Partnerships, Group Meetings, Workshops, standards development	Ongoing basis, annually	<ul> <li>Circular economy</li> <li>Community impact</li> <li>Environmental compliance &amp; eco-efficiency</li> <li>Hazardous materials</li> <li>Health &amp; safety</li> <li>Job creation</li> <li>Labor practices</li> <li>Responsible sourcing &amp; human rights</li> <li>Sustainable products &amp; innovation</li> </ul>
Scientific Community	Conferences, Workshops, Meetings, Working Groups, Technical Seminars, Collaboration, Peer Reviews, standards development	Ongoing basis, annually	<ul> <li>Circular economy</li> <li>Energy &amp; emissions</li> <li>Environmental compliance &amp; eco-efficiency</li> <li>Health &amp; safety</li> <li>Raw material availability</li> <li>Responsible sourcing &amp; human rights</li> </ul>

# **Key Performance Indicators**

Key Performance Indicators	2019	2020	Boundary	GRI	SASB	NSF 457
Net Sales (\$ Billion)	3.063	2.711	Global (Equity Share)	102-7		
Total Modules Produced (Millions)	25.04	15.6	Manufacturing	102-7		11.2.1
Total Gigawatts Produced (GW)	5.7	6.1	Manufacturing	102-7	RR-ST-000.A	11.2.1
Current/Future Revenue from Activities Aligned with EU Taxonomy (%)	100%	100%	Global			
Total Scope 1 and 2 GHG Emissions (Metric Tons CO <sub>2</sub> eq)	468,212	351,734	Global (Equity Share)	305-1 & 2		
Scope 1 GHG Emissions (Metric Tons CO <sub>2</sub> eq)	26,520	7,037	Global (Equity Share)	305-1		11.2.1
Scope 2 GHG Emissions (Metric Tons CO <sub>2</sub> eq)	441,692	344,697	Global (Equity Share)	305-2		11.2.1
Scope 3 GHG Emissions (Metric Tons CO <sub>2</sub> eq)	1,677,684	1,611,180	Supply Chain	305-3		
GHG Intensity (Scope 1 and Scope 2 Metric Tons CO <sub>2</sub> per Megawatt Produced)	83	57	Global (Equity Share)	305-4		11.2.2
Total Electricity Consumption (MWh)	959,400	841,976	Global (Equity Share)	302-1		
Consumption of Purchased Non-Renewable Electricity (MWh)	952,228	834,804	Global (Equity Share)	302-1		
Consumption of Self-Generated Renewable Electricity- Solar (MWh)	7,172	7,172	Manufacturing and Recycling	302-1	RR-ST-130a.1	
Total Fuel Consumption From Non-Renewable Sources (MWh)	86,531	26,084	Global (Equity Share)	302-1		
Natural Gas	21,973	25,798	Global (Equity Share)	302-1		
Diesel/Gas oil	63,942	156	Global (Equity Share)	302-1		
Motor Gasoline	616	130	Global (Equity Share)	302-1		
Total Energy Consumption (MWh)	1,045,931	868,060	Global (Equity Share)	302-1		
Manufacturing Energy Consumption (MWh)	926,947	795,915	Manufacturing		RR-ST-130a.1	11.2.3
Manufacturing Energy Intensity (kWh per Watt Produced)	0.16	0.13	Manufacturing	302-3		11.2.3
Total Waste Generation (Metric Tons)	41,506	45,076	Manufacturing	306-2		11.2.
Recycled Non-Hazardous (Metric Tons)	25,342	35,025	Manufacturing	306-2		11.2.
Recycled Hazardous (Metric Tons)	2,165	1,374	Manufacturing	306-2	RR-ST-150a.1	11.2.
Disposed Non-Hazardous (Metric Tons)	6,889	3,415	Manufacturing	306-2		11.2.
Disposed Hazardous (Metric Tons)	7,110	5,262	Manufacturing	306-2	RR-ST-150a.1	11.2.
Manufacturing Waste Intensity (Grams per Watt Produced)	7.3	7.4	Manufacturing			
Total Water Withdrawals (Megaliters)	3,846	3,655	Manufacturing, Recycling and R&D	303-1	RR-ST-140a.1	11.2.3
Manufacturing Water Intensity (Liters per Watt Produced)	0.68	0.60	Manufacturing			
Total Water Recycled or Reused (Megaliters)	300	290	Manufacturing, Recycling and R&D	303-3		11.2.2

Total Wastewater Discharge (Megaliters)         1,901         1,353         Manufacturing, Recycling and R&D         306-1           Wastewater Generation Intensity (Ulters per Watt produced)         0.34         0.22         Manufacturing, Recycling and R&D            Recycled input materials used (%)         2.5-8%         4-10.5%         Semiconductor material         301-2         RR0102-10         11.2.1           Total Number of Associates         6.602         5.111         Global         10.27         11.2.1           First Solar Global Recordable Injury Rate (per 200,000 hours)         0.67         0.48         Global         403-9         11.2.1           First Solar Global Recordable Injury Rate (per 200,000 hours)         0.67         0.48         Global             First Solar Global Lost Time Injury Rate (per 200,000 hours)         0.65         Global         403-9            First Solar Global Lost Time Injury Rate (per 200,000 hours)         0.26         0.31         Global         403-9         11.2.1           Rate (per 200,000 hours)         0.027         0         Global         403-9         11.2.1           Rate (per 200,000 hours)         1.4520,755         12,917,560         Global         403-9         11.2.1           Tasta of high-consequenc	Water withdrawn in water stressed areas (%)	0.01%	0.005%	Manufacturing, Recycling and R&D		RR-ST-140a.1	11.2.2
Cluters per Watt produced)   2.5-8%   4-10.5%   Semiconductor materials used (%)   2.5-8%   4-10.5%   Semiconductor materials used (%)   1.2.1 material materials used (%)   2.5-8%   4-10.5%   Semiconductor material materials used (%)   1.2.1 material materials used (%)   1.2.1 materials   1.2.1 ma	_	1,901	1,353		306-1		
Total Number of Associates   6,602   5,111   Global   102-7	•	0.34	0.22	_			
First Solar Global Recordable Injury Rate (per 200,000 hours)   0.69   0.46   Global   403-9   11.2.1	Recycled input materials used (%)	2.5-8%	4-10.5%		301-2	RR0102-10	11.2.1
Rate (per 200,000 hours)	Total Number of Associates	6,602	5,111	Global	102-7		
Injury Rate (per 200,000 hours)   1,92   0.85   Global   200,000 hours   1,92   0.85   Global   200,000 hours   1,92   0.85   Global   200,000 hours   200,0		0.69	0.46	Global	403-9		11.2.1
Rate (per 200,000 hours)         Image: Common to the		0.67	0.48	Global			
Rate (per 200,000 hours)         0         Global         403-9         11.2.1           Rate of high-consequence work-related injuries         0.027         0         Global         403-9         11.2.1           Total hours worked         14,520,755         12,917,560         Global         403-9         1           Total Training Hours worked         104,366         20,060         Global         404-0         404-1           Average Training Hours by Gender (Male)         15         5         Global         404-1         404-1           Average Training Hours by Gender (Male)         16         5         Global         404-1         404-1           Average Training Hours by Gender (Female)         16         5         Global         404-1         404-1           Average Training Hours by Gender (Female)         16         5         Global         404-1         404-1           Average Training Hours by Gender (Workforce         82%         80%         Global         405-1         404-1           We Male Workforce         18%         19%         Global         405-1         405-1           % Non-Disclosed Gender Workforce         0%         1%         Global         405-1         405-1           % Non-Disclosed Gender (Wale)		1.92	0.85	Global			
Rate of high-consequence work-related injuries   14,520,755   12,917,560   Global   403-9   Total hours worked   14,520,755   12,917,560   Global   404-0   Average Training Hours   104,366   20,060   Global   404-1   Global   405-1   Global   401-1   Global		0.26	0.31	Global	403-9		
work-related injuries         Invasion of the properties of the proper	Number of Work-Related Fatalities	0	0	Global	403-9		11.2.1
Total Training Hours   104,366   20,060   Global   404-0		0.027	0	Global	403-9		
Average Training Hours by Gender (Male)  Average Training Hours by Gender (Female)  Average Training Hours by Gender (Female)  Male Workforce  82%  80%  Global  404-1  Meshale Workforce  18%  19%  Global  405-1  Mon-Disclosed Gender Workforce  0%  1%  Global  405-1  Male Management  82%  80%  Global  405-1  Mosh-Disclosed Gender Workforce  0%  1%  Global  401-1  New Hires by Gender (% Male)  79%  77%  Global  401-1  New Hires by Gender (% Female)  20%  22%  Global  401-1  Mosh-Disclosed)  Associate Turnover Rate by Gender  (% Male)  Associate Turnover Rate by Gender  (% Female)  Associate Turnover Rate by Gender  (% Non-Disclosed)  Associate Turnover Rate by Gender  (% Non-Disclo	Total hours worked	14,520,755	12,917,560	Global	403-9		
(Male)       16       5       Global       404-1         % Male Workforce       82%       80%       Global       405-1         % Female Workforce       18%       19%       Global       405-1         % Non-Disclosed Gender Workforce       0%       1%       Global       405-1         % Male Management       82%       80%       Global       405-1         % Female Management       18%       19%       Global       405-1         % Non-Disclosed Gender Workforce       0%       1%       Global       405-1         New Hires by Gender (% Male)       79%       77%       Global       401-1         New Hires by Gender (% Female)       20%       22%       Global       401-1         New Hires by Gender (% Female)       1%       1%       Global       401-1         New Hires by Gender (% Female)       20%       22%       Global       401-1         New Hires by Gender (% Female)       1%       1%       Global       401-1         New Hires by Gender (% Female)       25%       Global       401-1         Associate Turnover Rate by Gender (% Female)       3%       5%       Global       401-1         Associate Turnover Rate by Gender (% Female)       0	Total Training Hours	104,366	20,060	Global	404-0		
(Female)       82%       80%       Global       405-1         % Female Workforce       18%       19%       Global       405-1         % Non-Disclosed Gender Workforce       0%       1%       Global       405-1         % Male Management       82%       80%       Global       405-1         % Female Management       18%       19%       Global       405-1         % Female Management       18%       19%       Global       405-1         % Non-Disclosed Gender Workforce       0%       1%       Global       405-1         New Hires by Gender (% Male)       79%       77%       Global       401-1         New Hires by Gender (% Female)       20%       22%       Global       401-1         New Hires by Gender (% Female)       1%       1%       Global       401-1         (% Non-Disclosed)       1       25%       Global       401-1         Associate Turnover Rate by Gender (% Female)       3%       5%       Global       401-1         Associate Turnover Rate by Gender (% Female)       0%       Global       401-1         (% Non-Disclosed)       1       0%       Global       401-1         (% Non-Disclosed)       0       0       Gl		15	5	Global	404-1		
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% Non-Disclosed Gender Workforce       0%       1%       Global       405-1         % Male Management       82%       80%       Global       405-1         % Female Management       18%       19%       Global       405-1         % Non-Disclosed Gender Workforce       0%       1%       Global       405-1         New Hires by Gender (% Male)       79%       77%       Global       401-1         New Hires by Gender (% Female)       20%       22%       Global       401-1         New Hires by Gender (% Female)       1%       Global       401-1         New Hires by Gender (% Non-Disclosed)       17%       25%       Global       401-1         Associate Turnover Rate by Gender (% Male)       3%       5%       Global       401-1         Associate Turnover Rate by Gender (% Female)       1%       0%       Global       401-1         Associate Turnover Rate by Gender (% Female)       1%       0%       Global       401-1         Associate Turnover Rate by Gender (% Female)       1%       0%       Global       401-1         ISO 14001 Certification of Mfg. %       100%       100%       Global	% Male Workforce	82%	80%	Global	405-1		
% Male Management       82%       80%       Global       405-1         % Female Management       18%       19%       Global       405-1         % Non-Disclosed Gender Workforce       0%       1%       Global       405-1         New Hires by Gender (% Male)       79%       77%       Global       401-1         New Hires by Gender (% Female)       20%       22%       Global       401-1         New Hires by Gender (% Non-Disclosed)       1%       1%       Global       401-1         Associate Turnover Rate by Gender (% Male)       3%       5%       Global       401-1         Associate Turnover Rate by Gender (% Female)       3%       5%       Global       401-1         Associate Turnover Rate by Gender (% Non-Disclosed)       1%       0%       Global       401-1         ISO 14001 Certification of Mfg. %       100%       100%       Global          ISO 45001 Certification of Mfg. %       100%       100%       Global	% Female Workforce	18%	19%	Global	405-1		
% Female Management         18%         19%         Global         405-1           % Non-Disclosed Gender Workforce         0%         1%         Global         405-1           New Hires by Gender (% Male)         79%         77%         Global         401-1           New Hires by Gender (% Female)         20%         22%         Global         401-1           New Hires by Gender (% Non-Disclosed)         1%         1%         Global         401-1           Associate Turnover Rate by Gender (% Male)         3%         5%         Global         401-1           Associate Turnover Rate by Gender (% Non-Disclosed)         1%         0%         Global         401-1           Associate Turnover Rate by Gender (% Non-Disclosed)         1%         0%         Global         401-1           ISO 14001 Certification of Mfg. %         100%         100%         Global            ISO 45001 Certification of Mfg. %         100%         100%         Global	% Non-Disclosed Gender Workforce	0%	1%	Global	405-1		
% Non-Disclosed Gender Workforce         0%         1%         Global         405-1           New Hires by Gender (% Male)         79%         77%         Global         401-1           New Hires by Gender (% Female)         20%         22%         Global         401-1           New Hires by Gender (% Non-Disclosed)         1%         1%         Global         401-1           Associate Turnover Rate by Gender (% Male)         25%         Global         401-1           Associate Turnover Rate by Gender (% Female)         3%         5%         Global         401-1           Associate Turnover Rate by Gender (% Non-Disclosed)         1%         0%         Global         401-1           ISO 14001 Certification of Mfg. %         100%         100%         Global            ISO 45001 Certification of Mfg. %         100%         100%         Global	% Male Management	82%	80%	Global	405-1		
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New Hires by Gender (% Female)         20%         22%         Global         401-1           New Hires by Gender (% Non-Disclosed)         1%         1%         Global         401-1           Associate Turnover Rate by Gender (% Male)         17%         25%         Global         401-1           Associate Turnover Rate by Gender (% Female)         3%         5%         Global         401-1           Associate Turnover Rate by Gender (% Non-Disclosed)         1%         0%         Global         401-1           ISO 14001 Certification of Mfg. %         100%         100%         Global            ISO 45001 Certification of Mfg. %         100%         100%         Global	% Non-Disclosed Gender Workforce	0%	1%	Global	405-1		
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(% Non-Disclosed)  Associate Turnover Rate by Gender (% Male)  Associate Turnover Rate by Gender (% Female)  Associate Turnover Rate by Gender (% Fomale)  Associate Turnover Rate by Gender (% Non-Disclosed)  ISO 14001 Certification of Mfg. % 100% 100% Global  ISO 45001 Certification of Mfg. % 100% 100% Global	New Hires by Gender (% Female)	20%	22%	Global	401-1		
(% Male)       Associate Turnover Rate by Gender (% Female)       3%       5%       Global       401-1         Associate Turnover Rate by Gender (% Non-Disclosed)       1%       0%       Global       401-1         ISO 14001 Certification of Mfg. %       100%       100%       Global          ISO 45001 Certification of Mfg. %       100%       100%       Global	T	1%	1%	Global	401-1		
(% Female)       Associate Turnover Rate by Gender (% Non-Disclosed)       1%       0%       Global       401-1         ISO 14001 Certification of Mfg. %       100%       100%       Global          ISO 45001 Certification of Mfg. %       100%       100%       Global		17%	25%	Global	401-1		
(% Non-Disclosed)       100%       100%       Global          ISO 45001 Certification of Mfg. %       100%       100%       Global		3%	5%	Global	401-1		
ISO 45001 Certification of Mfg. % 100% Global		1%	0%	Global	401-1		
	ISO 14001 Certification of Mfg. %	100%	100%	Global			
PV panel recycling program in place Yes Yes Global	ISO 45001 Certification of Mfg. %	100%	100%	Global			
	PV panel recycling program in place	Yes	Yes	Global			

#### Notes:

<sup>–</sup> Management is defined as manager-level and above.

<sup>-</sup> Associate Turnover Rate is calculated as a percent of the total workforce as of December 31 of the previous reporting year. Includes voluntary and involuntary turnover. Involuntary turnover in 2020 and in 2019 amounted to 9%.

<sup>–</sup> Total training hours in 2020 decreased due to the sale of our North American O&M and U.S. project development businesses, as well as the Covid-19 pandemic which limited learning primarily to compliance training.

# **GRI Content Index**

<b>Disclosure Number</b>	General Disclosures	Cross-Reference
102-01	Name of the organization	First Solar Inc.
102-02	Products and services and activities	Annual Report and 10-K
102-03	Location of headquarters	350 W Washington St #600, Tempe, AZ 85281, United States
102-04	Location of operations	About First Solar
102-05	Ownership and legal form	Annual Report and 10-K
102-06	Markets served	Annual Report and 10-K
102-07	Scale of the organization	Working at First Solar
102-08	Information on employees and workers	Working at First Solar
102-09	Description of supply chain	Supply Chain Overview
102-10	Significant changes to organization and its supply chain	Annual Report and 10-K
102-11	Precautionary principle or approach	Change Management System and EHS Peer Reviews
102-12	External initiatives	External Sustainability Initiatives
102-13	Membership of Associations	CDP Climate Change Response
102-14	Statement from senior decision-maker	Message from the CEO
102-15	Key impacts, risks and opportunities	Annual Report and 10-K
102-16	Values, principles, standards and norms of behavior	Our Culture and Ethical Business Conduct
102-17	Mechanisms for advice and concerns about ethics	Ethics Hotline
102-18	Governance structure	Governance
102-40	List of stakeholder groups	Stakeholder Engagement
102-41	Collective bargaining agreements	Collective Bargaining and Freedom of Association
102-42	Identifying and selecting stakeholders	Stakeholder Engagement
102-43	Approach to stakeholder engagement	Stakeholder Engagement
102-44	Key topics and concerns raised	Stakeholder Engagement
102-45	Entities included in the organization's consolidated financial statements	Annual Report and 10K
102-46	Defining report content and topic boundaries	About this Report
102-47	List of material topics	Sustainability Materiality Assessment
102-48	Restatements of information	2019 recycled input materials were recalculated to 2.5-8%. Total supply chain spend in 2019 was recalculated as \$2.6 billion based on purchase order data for consistency. The \$3.3 billion reported in last year's report was based on actual payments.
102-49	Changes in reporting	About this Report
102-50	Reporting period	January 1, 2020- December 31, 2020
102-51	Date of most recent report (if any)	August 27, 2020
102-52	Reporting cycle	Annual
102-53	Contact	sustainability@firstsolar.com
102-54	"In accordance" option	Core
102-55	GRI Content Index	GRI Content Index
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Material Topic	GRI Standards	Description	Cross-reference	NSF 457 Standard
Economic Performance	201-01	Direct economic value generated and distributed	Annual report and 10K	
Economic Performance	201-02	Risks and opportunities due to climate change	CDP Climate Change Response	
Procurement Practices	204-01	Proportion of spending on local suppliers	Supply Chain Overview	
Materials	301-02	Recycled input materials used	KPI Chart	Required
Energy	302-01	Energy consumption within the organization	KPI Chart	Required
Energy	302-03	Energy intensity	KPI Chart; Environmental metrics	Required
Energy	302-04	Reduction of energy consumption	CDP Climate Change Response	Optional
Water	303-01	Total water withdrawal	KPI Chart	Required
Water	303-03	Percentage of water recycled and reused	KPI Chart; Environmental metrics; CDP Water response	Optional
Effluents	303-04	Total water discharge by quality and destination	CDP Water response	
Emissions	305-01	Direct greenhouse gas (GHG) emissions (Scope 1)	KPI Chart; Environmental metrics	Required
Emissions	305-02	Indirect GHG emissions (Scope 2)	KPI Chart; Environmental metrics	Required
Emissions	305-04	GHG emissions intensity	KPI Chart	
Effluents and Waste	306-03	Breakdown of waste generated	KPI Chart; Environmental metrics	Optional
Environmental Compliance	307-01	Non-compliance with environmental laws and regulations	KPI Chart; Environmental metrics	Required
Supplier Environmental Assessment	308-01	New suppliers that were screened using environmental criteria	Environmental Metrics	Optional
Supplier Environmental Assessment	308-02	Negative environmental impacts in the supply chain and actions taken	Supply Chain Overview	Optional
Occupational Health and Safety	403-01	Workers representation in formal joint management–worker health and safety committees	Supply Chain Overview	Optional
Occupational Health and Safety	403-09	Work-related injuries	Occupational Health and Safety	Required
Supplier Social Assessment	414-01	New suppliers that were screened using social criteria	Occupational Health and Safety	Optional
Supplier Social Assessment	414-02	Negative social impacts in the supply chain and actions taken	Supply Chain Overview	Optional

